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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/561,053

06/26/2006

Normand Brisson

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CHOATE, HALL & STEWART LLP
TWO INTERNATIONAL PLACE
BOSTON, MA 02110

EXAMINER

KUMAR, VINOD

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

07/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/561,053

Applicant(s)

BRISSON ET AL.

Examiner

Vinod Kumar

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-46 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1, and 12-14, drawn to a peptide, or a cell or plant expressing said peptide, and wherein the peptide increases pathogen resistance in a plant, or wherein the peptide is a mutant of SEQ ID NO: 1.

Group II, claim(s) 1, and 12-14, drawn to a peptide, or a cell or plant expressing said peptide, and wherein the peptide increases pathogen resistance in a plant, or wherein the peptide is a mutant of SEQ ID NO: 2.

Group III, claim(s) 1, and 12-14, drawn to a peptide, or a cell or plant expressing said peptide, and wherein the peptide increases pathogen resistance in a plant, or wherein the peptide is a mutant of SEQ ID NO: 3.

Group IV, claim(s) 1, and 12-14, drawn to a peptide, or a cell or plant expressing said peptide, and wherein the peptide increases pathogen resistance in a plant, or wherein the peptide is a mutant of SEQ ID NO: 4.

Group V, claim(s) 2-11, 13, 15, 16, and 17, drawn to a recombinant nucleic acid molecule, a vector or an expression vector comprising said recombinant nucleic acid, a method of expressing said recombinant nucleic acid molecule, a cell, a plant cell or plant transformed with said recombinant nucleic acid or a method of increasing pathogen resistance in a plant comprising introducing and expressing said nucleic acid molecule, or wherein said nucleic acid molecule encodes a mutant peptide of SEQ ID NO: 1.

Group VI, claim(s) 2-11, 13, 15, 16, and 17, drawn to a recombinant nucleic acid molecule, a vector or an expression vector comprising said recombinant nucleic acid, a method of expressing said recombinant nucleic acid molecule, a cell, a plant cell or plant transformed with said recombinant nucleic acid or a method of increasing pathogen resistance in a plant comprising introducing and expressing said nucleic acid

Art Unit: 1638

molecule, or wherein said nucleic acid molecule encodes a mutant peptide of SEQ ID NO: 2.

Group VII, claim(s) 2-11, 13, 15, 16, and 17, drawn to a recombinant nucleic acid molecule, a vector or an expression vector comprising said recombinant nucleic acid, a method of expressing said recombinant nucleic acid molecule, a cell, a plant cell or plant transformed with said recombinant nucleic acid or a method of increasing pathogen resistance in a plant comprising introducing and expressing said nucleic acid molecule, or wherein said nucleic acid molecule encodes a mutant peptide of SEQ ID NO: 3.

Group VIII, claim(s) 2-11, 13, 15, 16, and 17, drawn to a recombinant nucleic acid molecule, a vector or an expression vector comprising said recombinant nucleic acid, a method of expressing said recombinant nucleic acid molecule, a cell, a plant cell or plant transformed with said recombinant nucleic acid or a method of increasing pathogen resistance in a plant comprising introducing and expressing said nucleic acid molecule, or wherein said nucleic acid molecule encodes a mutant peptide of SEQ ID NO: 4.

Group IX, claim(s) 18-29 and 41, drawn to a method of increasing pathogen resistance in a plant comprising mutating a nucleic acid sequence encoding p24 protein, and expressing said nucleic acid in a plant.

Group X, claim(s) 30-40, and 42 drawn to a method of increasing pathogen resistance in a plant comprising increasing DNA binding affinity of PBF-2 for an elicitor response element (ERE) of a pathogenesis-related (PR) gene.

Group XI, claim 43, drawn to a method of increasing pathogen resistance in a plant comprising the step of overexpressing AtWhy1, StWhy1, an ortholog or an analog thereof.

Group XII, claim(s) 44-46, drawn to a method of increasing pathogen resistance in a plant comprising the step of overexpressing a pathogenesis-related (PR) gene.

The inventions listed as Group I-XII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking Groups I-XII appear to be a nucleic acid sequence encoding a peptide which confers increased pathogen resistance in a plant. However, Town et al. (NCBI, GenBank Sequence Accession No. NP_101308, Published August 20, 2002) teach a nucleic acid sequence encoding a DNA binding protein p24. The property of increasing pathogen resistance is inherent to the peptide taught in the

Art Unit: 1638

reference as evidenced by Desveaux et al. (Developmental cell, 6:229-240, 2004). It may be emphasized that the recitations "ortholog", "homolog" or "functionally active variants or fragments" in claims 1, 2 or 43 read on any protein implicated in disease resistance.

Therefore, the technical feature linking the inventions of Groups I-XII does not constitute a special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art.

Accordingly, Groups I-XII are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

Applicants are reminded that different nucleotide sequences and amino acid sequences are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute different inventive concepts.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

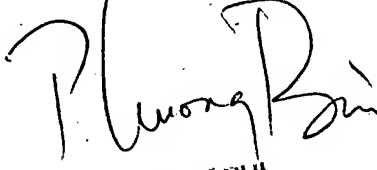
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod Kumar whose telephone number is (571) 272-4445. The examiner can normally be reached on 8.30 a.m. to 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone

Art Unit: 1638

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PHUONG T. BUI
PRIMARY EXAMINER